

Recovery Plan Action Status

Plan Name: Draft Recovery Plan for Stephen's Kangaroo Rat (*Dipodomys stephensi*)

Plan Status: Draft

Plan Date: 23-Jun-97

Lead Agency: USFWS

Lead Office: Carlsbad Fish And Wildlife Office

(760)
431-9440)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Stephens' kangaroo rat (<i>Dipodomys stephensi</i> (incl. <i>D. cactus</i>))	2	I.A.1	Establish ecosystem based conservation unit in San Diego County	Not Started			San Diego County, California, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Acquisition: General	Labor type not yet selected	Although recent land acquisitions have benefitted SKR (e.g. Ramona Grasslands), these acquisitions do not fall within the Recovery Plan's definition of an "ecosystem based" conservation unit.
Stephens' kangaroo rat (<i>Dipodomys stephensi</i> (incl. <i>D. cactus</i>))	1	I.A.2	Protect smaller, more isolated conservation units.	Ongoing Current	FY 1995 - FY 1999		Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, Riverside County Regional Conservation Authority	Acquisition: General	Labor type not yet selected	Ongoing pursuant to Western Riverside MSHCP and other agreements
Stephens' kangaroo rat (<i>Dipodomys stephensi</i> (incl. <i>D. cactus</i>))	1	I.B.1.a	Establish one ecosystem based conservation unit in Riverside County.	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service	Acquisition: General	Labor type not yet selected	Acquisition of Potrero Valley in 2003

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	I.B.1.b	Establish one additional ecosystem based conservation unit in San Diego County.	Not Started			Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Acquisition: General	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	II.A.1	Post and fence conservation units where appropriate and as needed.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Management: General	Labor type not yet selected	ongoing management of Conservaton areas in Riverside and San Diego Counties

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.A.2	Eliminate discing and grading of habitat in conservation units.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Management: Land Use	Labor type not yet selected	ongoing management reduces unwanted grading/discing of habitat within Conservation areas in Riverside and San Diego Counties. Some discing occurs due to local fuel reduction (fire prevention) requirements and for beneficial (habitat improvement) purposes. Some grading may occur during fire suppression activities, but is minimized through coordination with land managers and adherence to FWS-approved land management plans.
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.A.3.a	Reduce impacts of exotic plants in conservation units.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, March Air Force Base, California Department of Fish and Game, U.S. Forest Service	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	ongoing management of Conservation areas in Riverside and San Diego Counties

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.A.3.b	Prevent introduction of exotic plants in conservation units.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Management: Habitat Maintenance and Manipulation	Labor type not yet selected	ongoing management of Conservation areas in Riverside and San Diego Counties
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.B.1.a	Prevent use of rodenticides in conservation units.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Management: Other	Labor type not yet selected	ongoing management of Conservation areas in Riverside and San Diego Counties. Concern remains over use of rodenticides in areas directly adjacent to Conservation areas (e.g. Lake Skinner Recreation Area and agricultural fields adjacent to Ramona Grasslands).

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.B.1.b	Prevent indiscriminant use of pesticides in conservation units.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, March Air Force Base, California Department of Fish and Game, U.S. Forest Service	Management: Other	Labor type not yet selected	ongoing management of Conservation areas in Riverside and San Diego Counties
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	II.B.2	Reduce predation from introduced predators	Not Started			University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Forest Service, Riverside County Regional Conservation Authority	Management: Depredation Control	Labor type not yet selected	This has not yet proven itself to be an impediment to recovery. No significant predation due to domestic animals (cats) has been observed within any of the Conservation Areas. Suggest an inquiry to land managers over the next year and potentially changing this action to "obsolete."
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.A	Investigate relationship of Stephens' kangaroo rat with its biological community.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Ecosystem Studies	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.B	Investigate role of pathogens in ecology of the Stephens' kangaroo rat.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Disease	Labor type not yet selected	

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.C	Investigate ecology of plant communities that constitute habitat for the Stephens' kangaroo rat.	Ongoing Not Current	Prior to FY 1995		U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Habitat Requirements	Labor type not yet selected	several studies complete but information gaps remain
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.D	Investigate reserve size and configuration on biological community structure and function	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Other Information	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.E	Determine distribution and abundance of Stephens' kangaroo rat.	Ongoing Current	Prior to FY 1995		University of California, Vista Irrigation District, Metropolitan Water District, Riverside County Habitat Conservation Agency, U.S. Bureau of Land Management, Camp Pendleton, U.S. Marine Corps, U.S. Fish and Wildlife Service, California Department of Fish and Game, Riverside County Regional Conservation Authority	Research: Population Surveys	Labor type not yet selected	Riverside County Habitat Conservation Agency is conducting a multi-year comprehensive assessment of the range, distribution, and percent area occupied by SKR within Western Riverside County. Surveys associated with proposed land development projects in San Diego County continue to contribute to our understanding of the species range and distribution.
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.F	Investigate suppression and eradication techniques for introduced grasses.	Ongoing Current			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Management Techniques	Labor type not yet selected	Several methods for controlling nonnative grasses are being experimentally investigated, including: several techniques being compared at Lake Skinner (as part of an SKR translocation study), vegetation burning within the former March SKR Management area, and sheep grazing within the Lake Mathews, Steele Peak, and Sycamore Canyon conservation areas.

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	2	III.G	Develop habitat management techniques.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Management Techniques	Labor type not yet selected	Several methods for controlling nonnative grasses are being experimentally investigated.
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	III.H	Develop, implement, and evaluate a Stephens' kangaroo rat monitoring protocol.	Ongoing Current	Prior to FY 1995		University of California, Riverside County Habitat Conservation Agency, Camp Pendleton, U.S. Marine Corps, Fallbrook Naval Weapons Annex, U.S. Fish and Wildlife Service, California Department of Fish and Game, Riverside County Regional Conservation Authority	Research: Population Surveys	Labor type not yet selected	The RCA, RCHCA, University of California, U.S. Marine Corps, and Fallbrook Naval Weapons Annex are all working on development and testing of long-term monitoring plans to track SKR abundance and distribution within their respective areas of jurisdiction.
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	III.I	Develop complete population characteristics model for the Stephens' kangaroo rat.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Research: Other Information	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	IV.A	Distribute educational material.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Labor type not yet selected	

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Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	IV.B	Provide information to land managers.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Labor type not yet selected	Information is shared with the land managers through a multitude of forums, including quarterly coordination meetings sponsored by the RCHCA, periodic meetings with individual land managers (as sometimes required pursuant to a cooperative management agreement), and direct meetings with personnel from the RCA and military installations.
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	IV.C	Provide information to private land owners.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	IV.D	Establish observation areas.	Not Started			U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Labor type not yet selected	
Stephens' kangaroo rat (Dipodomys stephensi (incl. D. cascus))	3	IV.E	Provide photos.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, California Department of Fish and Game	Other: Information and Education	Labor type not yet selected	Photographs of SKR are made available to the land managers and general public via the FWS outreach/media relations programs and the ECOS website.